

APPL. No. 10/729,670

Amdt. Dated: November 1, 2004

Reply to Office Action of August 23, 2004

Page 4

LISTING OF CLAIMS

This listing of claims will replace all prior versions or listings of claims in the application.

1. (currently amended) A tank fluid parameter monitoring device comprising;

at least one tank having at least one tank fluid parameter,

at least one tank fluid parameter sensor, said tank fluid parameter sensor further comprising one linear hall effect sensor in magnetic communication with a magnet, said hall effect sensor aligned essentially in the travel plane of said magnet, said magnet disposed proportional to said tank fluid parameter.

at least one smart transceiver in communication with at least one said tank fluid parameter sensor,

wherein said smart transceiver further comprises a means for determining if said at least one tank fluid parameter is within a predetermined range and a means for two-way transceiving said at least one tank fluid parameter over wireless telemetry.

2. (currently amended) The device of Claim 1 wherein said tank fluid parameter is ~~at least one parameter selected from the group consisting of liquid level, gas pressure, and liquid weight.~~

3. (canceled) The device of Claim 2 wherein said at least one tank fluid parameter sensor further comprises;

a linear programmable hall effect sensor in magnetic communication with a float magnet, said hall effect sensor aligned essentially in the travel plane of said float magnet, said float magnet disposed proportional to the liquid level tank fluid parameter.

APPL. No. 10/729,670

Amdt. Dated: November 1, 2004

Reply to Office Action of August 23, 2004

Page 5

4. (withdrawn) The device of Claim 2 wherein said at least one tank fluid parameter sensor further comprises;

a potentiometer,

a float magnet disposed proportional to the liquid level tank fluid parameter,

a follower magnet assembly disposed in relation to said float magnet,

wherein said potentiometer is in mechanical communication with said follower magnet assembly and said follower magnet assembly is in magnetic communication with said float magnet.

5. (withdrawn) The device of Claim 2 wherein said tank fluid parameter sensor further comprises;

a pad for sensing the weight of said tank,

a capacitance sensor disposed in said pad, and

a capacitance to voltage conversion circuit.

6. (canceled) The device of Claim 3 wherein said tank fluid parameter sensor further comprises a pressure transducer.

7. (withdrawn) The device of Claim 4 wherein said tank fluid parameter sensor further comprises a pressure transducer.

8. (canceled) The device of Claim 5 wherein said tank fluid parameter sensor further comprises a pressure transducer.

9. (original) The device of Claim 1 wherein said wireless telemetry further comprises a paging network.

10. (original) The device of Claim 1 wherein said wireless telemetry further comprises a cellular network.

APPL. No. 10/729,670

Amdt. Dated: November 1, 2004

Reply to Office Action of August 23, 2004

Page 6

11. (currently amended) A method for monitoring a tank fluid parameter comprising;
providing at least one tank having at least one tank fluid parameter,
measuring at least one tank fluid parameter with a tank fluid parameter sensor,
said tank fluid parameter sensor further comprising one linear hall effect sensor in
magnetic communication with a magnet, said hall effect sensor aligned essentially in the
travel plane of said magnet, said magnet disposed proportional to said tank fluid
parameter, and

transceiving said tank fluid parameter using at least one smart transceiver in
communication with at least one said tank fluid parameter sensor, wherein said smart
transceiver further comprises a means for determining if said at least one tank fluid
parameter is within a predetermined range and a means for two-way transceiving said at
least one tank fluid parameter over wireless telemetry.

12. (currently amended) The method of Claim 11 wherein said tank fluid parameter is at
~~least one parameter selected from the group consisting of liquid level, gas pressure, and~~
~~liquid weight.~~

13. (canceled) The method of Claim 12 wherein said at least one tank fluid parameter
sensor further comprises;

a linear programmable hall effect sensor in magnetic communication with a float
magnet, said hall effect sensor aligned essentially in the travel plane of said float magnet,
said float magnet disposed proportional to the liquid level tank fluid parameter.

14. (withdrawn) The method of Claim 12 wherein said at least one tank fluid parameter
sensor further comprises;

a potentiometer,

a float magnet disposed proportional to the liquid level tank fluid parameter,

a follower magnet assembly disposed in relation to said float magnet,

APPL. No. 10/729,670

Amdt. Dated: November 1, 2004

Reply to Office Action of August 23, 2004

Page 7

wherein said potentiometer is in mechanical communication with said follower magnet assembly and said follower magnet assembly is in magnetic communication with said float magnet.

15. (withdrawn) The method of Claim 12 wherein said tank fluid parameter sensor further comprises;

- a pad for sensing the weight of said tank,
- a capacitance sensor disposed in said pad, and
- a capacitance to voltage conversion circuit.

16. (canceled) The method of Claim 13 wherein said tank fluid parameter sensor further comprises a pressure transducer.

17. (withdrawn) The method of Claim 14 wherein said tank fluid parameter sensor further comprises a pressure transducer.

18. (withdrawn) The method of Claim 15 wherein said tank fluid parameter sensor further comprises a pressure transducer.

19. (original) The method of Claim 11 wherein said wireless telemetry further comprises a paging network.

20. (original) The method of Claim 11 wherein said wireless telemetry further comprises a cellular network.